

National Climatic Data Center

DATA DOCUMENTATION

FOR

DATA SET 1165 (DSI-1165)

Tropical Pacific Moored Buoy Data

March 20, 2003

National Climatic Data Center
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1. Abstract: The Tropical Pacific Moored Buoy data set contains the meteorological and oceanographic data obtained from the [ATLAS](#) (Autonomous Temperature Line Acquisition System). This set is from the early years of the Tropical Atmosphere Ocean (TAO) project of the Pacific Marine Environment Laboratory (PMEL), which is still ongoing today. However, NCDC has data only for 1984-92. There was one reporting buoy in 1984. The numbers had increased to 53 by 1992. The ATLAS mooring is a taut wire surface mooring with a toroidal float. It is deployed in depths of up to 6000 meters. Measurements from the mooring include surface variables (wind, air and sea surface temperature), as well as subsurface temperatures down to a depth of 500 meters.

2. Element Names and Definitions: The ATLAS data is subdivided into files, each one of which contains data for a single mooring location for a time period of one year or less. Data files are in the order shown on the attached listing (titled "ATLAS Data Tape Contents").

Data Format: Each file has a header consisting of two 80-character lines. The first header line gives the ATLAS mooring location, the time period included in the file, the number of data points, and the number of variables in the file. Sample FORTRAN code to read the location, number of points and number of variables follows:

```
CHARACTER*1 HEMILAT,HEMILON
READ (IUNIT,100)
XLAT,HEMILAT,XLON,HEMILON,NPOINTS,NVARS
100      FORMAT (11X,F5.2,A1,X,F6.2,A1,43X,I3,4X,I2)
```

1st Header

Column	Variable	Example
0-7	Location Identifier	'Location'
10-14	Latitude	2.00S
17-22	Longitude	110.00W
27-30	Time Identifier	'Time'
33-64	Time Period	0000 1 Jan 84 to 0000 31 DEC 84
66-84	Number of data points and number of variables	(34 points) (8 variables)

In general, the file contains daily average data. Days for which there are no data values available are omitted from the listings. Therefore, the number of points in the file may be less than the number of days in the time period covered by the file.

The second header line contains column titles which are descriptive of the data values in the data lines of the file. Dates are in the yymmdd format and are in UTC. Data variables on the file may include: Air Temperature (AIR), Zonal (WND-U) and Meridional (WND-V) components of the wind, Sea Surface Temperature (SST) and Sub Surface Temperatures (Tnnn where nnn is the depth).

:

3:

2nd Header

Column Title	Column Width	Example
Date	6	851109
Air	5	24.06
WND-U	5	999.9
WND-V	5	999.9
SST	5	26.49
T20	5	26.54
T40	5	26.59
T60	5	26.53
T100	5	17.80
T120	5	13.76
T140	5	12.50
T180	5	11.27
T300	5	10.08
T500	5	7.98

*Some files have different temperature levels. The 1984 data, which only covers the one buoy, does not include surface variables.

Winds are in meters per second (m/s) and are in oceanographic convention, e.g., positive U means the wind is blowing towards the East. When no wind data were available, data values of 999.9 are substituted.

Temperatures are in degrees Centigrade. When temperature data were missing, data values of 99.9 are substituted. Sample FORTRAN code to read the data scans follows:

```

      DIMENSION V(365,20)
      DO 200 I=1,NPTS
        READ (IUNIT,101) IYEAR,IMONTH,IDAY,(V(I,J),J=1,NVARS)
101    FORMAT (X,3I2,X,20F6.0)
200    CONTINUE

```

3. **Start Date:** 19841128

4. **Stop Date:** 19921231

5. **Coverage:**

- a. Southernmost Latitude = -8S
- b. Northernmost Latitude = 9N
- c. Westernmost Longitude = 137W
- d. Easternmost Longitude = -95E

6. **How to Order Data:**

Ask NCDC's Climate Services about the cost of obtaining this data set.
 Phone 828-271-4800
 FAX 828-271-4876
 E-mail: NCDC.Orders@noaa.gov

7. **Archiving Data Center:**

National Climatic Data Center/NCDC

:

Federal Building
151 Patton Avenue
Asheville, NC 28801-5001

Phone: 828-271-4800
FAX : 828-271-4876

8. **Technical Contact:**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, NC 28801-5001

Phone: 828-271-4996

9. **Known Uncorrected Problems:** None.

10. **Quality Statement:** None provided in original documentation.

11. **Essential Companion Data Sets:** None

12. **References:** None provided in original documentation. See the National Data Buoy Center/NDBC for additional information.

www.ndbc.noaa.gov/

<http://www.dbcp.noaa.gov/dbcp/3ab.html>

<http://www.pmel.noaa.gov/tao/>